

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims

Claim 1 (Previously presented): A method of concurrently copying a plurality of items, the method being implemented in a computer, the method comprising:

- a parent process checking if a first item in said plurality is a file or a directory;
- said parent process conditionally copying the first item if the first item is found during the checking to be a file and alternatively creating a child process;
- after creation, the child process performs the checking, the conditionally copying and the alternatively creating, with another item in the directory represented by the first item; and
- wherein the parent process performs the checking, the conditionally copying and alternatively creating, with a second item in said plurality.

Claims 2-3 (Canceled).

Claim 4 (Previously presented): The method of claim 1 further comprising, prior to the creating:

- comparing a current number of processes, created for copying, with a limit; and
- waiting if the current number is greater than or equal to the limit.

Claim 5 (Previously presented): The method of Claim 1 further comprising, prior to the creating:

- the parent process increasing a limit on a resource; and
- the child process using the resource at the increased limit during copying.

Claim 6 (Original): The method of claim 5 wherein:
the resource is number of open files.

Claim 7 (Original): The method of claim 5 wherein:
the resource is file size.

Claim 8 (Original): The method of claim 5 wherein:
the resource is memory.

Claim 9 (Original): The method of claim 8 wherein:
the memory is organized as a stack.

Claim 10 (Original): The method of claim 8 wherein:
the memory is organized as a heap.

Claim 11 (Currently Amended): ~~A method of concurrently copying a plurality of items, the method being implemented in a computer, the method comprising:~~

~~a parent process checking if a first item in said plurality is a file or a directory;
said parent process conditionally copying the first item if the first item is found during the checking to be a file and alternatively creating a child process;~~

~~after creation, the child process performs the checking, the conditionally copying and the alternatively creating, with another item in the directory represented by the first item;~~

~~wherein the parent process performs the checking, the conditionally copying and alternatively creating, with a second item in said plurality; and~~

The method of claim 1 wherein the copying comprises:

transferring data from the file into a temporary buffer;

locking the temporary buffer; and

invoking a direct memory access (DMA) process for making a copy from the temporary buffer.

Claim 12 (Previously presented): The method of claim 11 further comprising prior to the copying:

the parent process checking if the first item is a link to itself, and performing said copying only if the first item is not a link to itself.

Claim 13 (Original): The method of claim 12 wherein:
the checking includes a string comparison operation.

Claim 14 (Previously presented): The method of claim 11 further comprising, during the copying:
the parent process sending an email message if a resource at a destination is full;
wherein the email message is sent to an email address of a user that started the method.

Claim 15 (Original): The method of claim 14 further comprising, during the copying:
waiting to be restarted subsequent to sending the email message.

Claim 16 (Original): The method of claim 15 wherein said waiting comprises:
sending a signal to self to suspend execution.

Claim 17 (Previously presented): The method of claim 15 further comprising, during the copying:
recopying said file from beginning, on being restarted.

Claim 18 (Previously presented): The method of claim 14 wherein:
the email address is identified from a password file based on an identity of said user.

Claim 19 (Previously presented): The method of claim 1 wherein:
said alternatively creating is performed only if said directory is not a current directory and not a parent directory.

Claims 20-28 (Canceled).

Claim 29 (Currently amended): A computer for concurrently copying items in storage media, the computer comprising:

a processor ~~programmed to check~~ comprising means for checking if an item to be copied is a file or a directory; and

said processor further comprising means for conditionally copying the item if the item is a file and alternatively creating a child process;

wherein said child process comprises a copy of said means for checking and said means for conditionally copying and alternatively creating;

wherein each item is input to said ~~means for spawning and said means for conditionally copying~~ processor.

Claim 30 (Previously presented): The computer of claim 29 further comprising:

means for sending an email message if the means for conditionally copying encounters an error.

Claim 31 (Previously presented): The computer of claim 29 further comprising:

means for increasing a limit on a resource to maximum.

Claim 32 (Currently amended): ~~A computer for concurrently copying items in storage media, the computer comprising:~~

~~a processor programmed to check if an item to be copied is a file or a directory; and
said processor comprising means for conditionally copying the item if the item is a file and alternatively creating a child process;~~

~~wherein said child process comprises said means for conditionally copying and said alternatively creating;~~

~~wherein each item is input to said processor; and~~

The apparatus of Claim 29

wherein said means for conditionally copying comprises:

means for transferring data from the file into a temporary buffer;

means for locking the temporary buffer; and
means for using direct memory access (DMA) to make a copy from the temporary buffer.

Claim 33 (Previously presented): The computer of claim 29 further comprising:
means for checking if the item is a link to itself.

Claim 34 (Previously presented): The method of Claim 1 wherein:
the parent process is started with an instruction to perform said method for each item in the directory.

Claim 35 (Canceled).

Claim 36 (Previously presented): The method of Claim 1 wherein:
the number of processes created corresponds to the number of directories to be copied.

Claim 37 (Canceled).

Claim 38 (Previously presented): The method of Claim 1 further comprising:
checking if the file is in a list of items to be excluded from copying; and
performing said copying only if the file is not in said list.

Claim 39 (Previously presented): The method of Claim 1 wherein:
the file is copied to multiple destinations if specified by the user.

Claims 40-42 (Canceled).

Claim 43 (Previously presented): A computer readable storage medium encoded with software, the software comprising instructions to archive an item in a computer by:
using a current process to check if said item is a file or a directory;

using the current process to conditionally copying the item if the item is found during the checking to be a file and alternatively creating a new process; and

using the new process to perform the checking, the conditional copying and the alternatively creating, with another item in the directory represented by said item;

wherein the new process if created executes simultaneously or contemporaneously with the current process.

Claim 44 (canceled).

Claim 45 (Previously presented): The medium of Claim 43 wherein:

the current process calls a function to recursively spawn a plurality of new processes including said new process; and

on return from the function, the current process waits for all new processes to finish.

Claim 46 (Currently amended): ~~A method of concurrently copying a list of items implemented in a computer, the method comprising:~~

~~a parent process in said computer checking if a first item in said list is a file or a directory;~~

~~said parent process conditionally copying the first item if the first item is found during the checking to be a file and alternatively creating a~~

The method of Claim 1 wherein:

said child process in said computer is created after said parent process changing changes a default limit on a resource to a maximum limit;

after said creation, the child process inherits the maximum limit and performs prior to performing the checking, the conditionally copying and the alternatively creating, with another item in the directory represented by the first item;

wherein after said creation, the parent process performs the checking, the conditionally copying and alternatively creating, with a second item in said list;

wherein at least one of the parent process and the child process:

allocates memory to hold at least a temporary buffer and a stack, stores in said stack an absolute path and a local path to said directory, checks if an entry in said

directory is a symbolic link, checks if the symbolic link is circular, and ignores the link if circular;

checks if a destination is full and sends an email message if a result thereof is true and waits to be restarted subsequent to said sending; and

transfers data to said temporary buffer, locks said temporary buffer and invokes a direct memory access process for making a copy from said temporary buffer to said destination.

Claim 47 (Previously presented): The method of Claim 46 further comprising:

using operating system stack space in said computer by making recursive calls when memory allocated for said stack is used up.